To: Sarah Gaichas [Sarah.Gaichas@noaa.gov]
Cc: []
Bcc: []
From: CN=Phil North/OU=R10/O=USEPA/C=US
Sent: Mon 1/4/2010 9:42:31 PM
Subject: Re: Fw: Bristol Bay salmon role in North Pacific

That works for me. If you are in Seattle then yes, it is 11 - 12 your time. Will you call me?

Phillip North
Environmental Protection Agency
Kenai River Center
514 Funny River Road
Soldotna, Alaska 99669
(907) 714-2483
fax 260-5992
north.phil@epa.gov

"To protect your rivers, protect your mountains."

From: Sarah Gaichas <Sarah.Gaichas@noaa.gov>
To: Phil North/R10/USEPA/US@EPA
Date: 01/04/2010 12:28 PM
Subject: Re: Fw: Bristol Bay salmon role in North Pacific

Wednesday works fine for me. Want to talk between 10-11 (your time,
which I think is between 11 and noon my time)?
--S

North.Phil@epamail.epa.gov wrote:
> I will be out of the office all day tomorrow. How about Wednesday? I
> am free except 9:30 - 10 and 11 - 12.
>
> Thanks
>
> Phillip North
> Environmental Protection Agency
> Kenai River Center
> 514 Funny River Road
> Soldotna, Alaska 99669
> (907) 714-2483
> fax 260-5992
> north.phil@epa.gov
>
> "To protect your rivers, protect your mountains."
>
>
>
> From: Sarah Gaichas <Sarah.Gaichas@noaa.gov>
>
> To: Phil North/R10/USEPA/US@EPA
>

> Date: 01/04/2010 11:23 AM
>
> Subject: Re: Fw: Bristol Bay salmon role in North Pacific
>
>
>
>
>
>
>
> Hi Phil,
>
> I'm happy to try and help, but would tomorrow work? I'm teleworking
> today, dont have access to all of my files, and have a review deadline.
> Since this sounds like more of a Bering Sea issue and I am most familiar
>
> with the GOA, it would be good to try to answer you with some Bering Sea
>
> information in front of me.... thats all at the office.
>
> Would around 10 am tomorrow work? Or let me know a time that works
> better. My number is 206 526 4554.
>
> Thanks,
> --Sarah
>
> North.Phil@epamail.epa.gov wrote:
>
>> Hi Sarah,
>> Can you help me out? If you send a phone number I'll call and explain
>> my effort. Anything you can offer would be helpful.
>>
>> Thanks
>> Phil
>>
>>
>>
>> Phillip North
>> Environmental Protection Agency
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>> north.phil@epa.gov
>>
>> "To protect your rivers, protect your mountains."
>>
>>
>>
>>
>
>
>> From: "Daniel Schindler" <deschind@u.washington.edu>
>>
>
>

>
>
>> To: <sarah.gaichas@noaa.gov>
>>
>
>
>
>
>> Cc: Phil North/R10/USEPA/US@EPA
>>
>
>
>
>
>> Date: 12/31/2009 12:12 PM
>>
>
>
>
>
>> Subject: Fw: Bristol Bay salmon role in North Pacific
>>
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>
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>
>>
>>
>>
>> Hi Sarah,
>> I intended for you to receive this message but mis-typed your email.
>> Daniel
>>
>>
>> ----- Original Message -----
>> From: "Daniel Schindler" <deschind@u.washington.edu>
>> To: <wgpearcy@coas.oregonstate.edu>; <North.Phil@epamail.epa.gov>
>> Cc: "Kerim Aydin" <Kerim.Aydin@noaa.gov>; <sarah.gachias@noaa.gov>
>> Sent: Thursday, December 31, 2009 1:07 PM
>> Subject: Re: Bristol Bay salmon role in North Pacific
>>
>>
>>
>>
>>> Hi Phil,
>>>
>>> I suspect that at the scale of fish biomass in the North Pacific, or
>>>
>>>
>> even
>>
>>
>>> Bering and Gulf of AK, that this number will end up being tiny. The
>>>
>>>
>> person

>>
>>
>>> to get in touch with to put your estimate in perspective is Kerim
>>>
>>>
>> Aydin at
>>
>>
>>> the Alaska Fisheries Science Center. His group has developed a bunch
>>>
>>>
>> of
>>
>>
>>> Ecosim models for these ecosystems so they should be able to tell you
>>>
>>>
>> who
>>
>>
>>> the main predators for salmon smolts are, and how much of their diets
>>>
>>>
>> are
>>
>>
>>> smolts. Sarah Gachias also works with this group and certainly has
>>>
> the
>
>>
>>> answer as well.
>>>
>>> Cheers and good luck - all data to show that the Pebble Mine is an
>>> environmental (and social) mistake are needed!
>>> Daniel
>>>
>>>
>>> ----- Original Message -----
>>> From: <North.Phil@epamail.epa.gov>
>>> To: <wgpearcy@coas.oregonstate.edu>; <deschind@u.washington.edu>
>>> Sent: Thursday, December 31, 2009 9:34 AM
>>> Subject: Fw: Bristol Bay salmon role in North Pacific
>>>
>>>
>>>
>>>
>>>> Bill and Daniel,
>>>> As you can see in the message string below Bob Naiman gave me your
>>>> names. I am trying to describe the likely consequences of various
>>>> scenarios of impact should the Pebble Mine be developed in the
>>>>
>>>>
>> Bristol
>>
>>

>>>> Bay watershed. As described below, based on ADFG data and
>>>>
>>>>
>> assumptions I
>>
>>
>>>> have estimated that the Nushagak and Kvichak river systems produced
>>>> about 1.6 billion smolts from the 2008 salmon run. About 1.57
>>>>
>>>>
>> billion
>>
>>
>>>> of these fish will not return and so are forage for something in the
>>>> North Pacific and Bering Sea. But I have no sense of the
>>>>
>>>>
>> significance
>>
>>
>>>> of that number of fish in the ocean ecosystem. I am trying to
>>>>
> answer
>
>>>> the question "If there was a substantial loss from the out-migration
>>>>
>>>>
>> of
>>
>>
>>>> Nushagak and Kvichak salmon what would be the effect on the North
>>>> Pacific and Bering Sea ecosystem(s)?"
>>>>
>>>> My background is in fresh water systems. Can you direct me to any
>>>> literature that might help answer the question or can you help me
>>>>
>>>>
>> answer
>>
>>
>>>> this question?
>>>>
>>>> Phil
>>>>
>>>>
>>>>
>>>> Phillip North
>>>> Environmental Protection Agency
>>>> Kenai River Center
>>>> 514 Funny River Road
>>>> Soldotna, Alaska 99669
>>>> (907) 714-2483
>>>> fax 260-5992
>>>> north.phil@epa.gov
>>>>
>>>> "To protect your rivers, protect your mountains."

>>>> ----- Forwarded by Phil North/R10/USEPA/US on 12/31/2009 08:18 AM
>>>>
>>>>
>> -----
>>
>>
>>>> From: "Robert J. Naiman" <naiman@uw.edu>
>>>>
>>>> To: Phil North/R10/USEPA/US@EPA
>>>>
>>>> Date: 12/31/2009 06:20 AM
>>>>
>>>> Subject: Re: Bristol Bay salmon role in North Pacific
>>>>
>>>>
>>>>
>>>>
>>>>
>>>>
>>>> Phil,
>>>>
>>>> You might try contacting Bill Pearcy (Oregon State University;
>>>> <wgpearcy@coas.oregonstate.edu>) or Daniel Schindler (UW;
>>>> <deschind@u.washington.edu>). If they cannot help then I suspect
>>>>
>>>>
>> that
>>
>>
>>>> they will know someone who can.
>>>>
>>>> I hope your project goes well as there is a lot riding on the
>>>> development of the mine.
>>>>
>>>> Cheers, Bob
>>>>
>>>>
>>>> Robert J. Naiman
>>>> Professor and UNESCO Chair in Sustainable Rivers
>>>> School of Aquatic and Fishery Sciences
>>>> University of Washington - 355020
>>>> Seattle, WA 98195-5020 USA
>>>> Phone (206) 685-2025
>>>> Fax: (206) 685-7471
>>>>
>>>> FOR DELIVERIES AND EXPRESS MAIL:
>>>> UW-Fishery Sciences Building
>>>> 1122 N.E. Boat Street
>>>> Seattle, WA 98105
>>>> <<<<<<<<<<<<<<<<<<<<<<<<<<<
>>>>
>>>> On Wed, 30 Dec 2009 North.Phil@epamail.epa.gov wrote:
>>>>
>>>>
>>>>
>>>>> Hello Dr. Naiman,

>>>>> One of my duties is the review of environmental impacts of the
>>>>>
>>>>>
>> Pebble
>>
>>
>>>>> Mine in the Bristol Bay watershed. In my attempt to determine
>>>>>
>>>>>
>> likely
>>
>>
>>>>> outcomes of mine development I have tried to project the
>>>>>
>>>>>
>> consequences
>>
>>
>>>> of
>>>>
>>>>
>>>>> various levels of upset at the mine, in various time frames. In
>>>>>
>>>>>
>> doing
>>
>>
>>>>> so I estimated the number of smolts produced by the Nushagak and
>>>>>
>>>>>
>>>> Kvichak
>>>>
>>>>
>>>>> Rivers. I am not aware of any monitoring of smolts so I employed
>>>>> assumptions and estimates used by ADFG to manage the fishery. I
>>>>> projected that, based on 2008 escapement estimates (28 million) and
>>>>> smolt survival assumptions (10%), these two watersheds produced 1.6
>>>>> billion smolts.
>>>>>
>>>>> This seems like a big number. But now I am trying to figure out
>>>>>
>>>>>
>> what
>>
>>
>>>>> this number means to the North Pacific ecosystem (including the
>>>>>
>>>>>
>> Bering
>>
>>
>>>>> Sea). I don't know how this number of fish relates to the overall
>>>>> population of "forage fish". In turn I don't know the consequences
>>>>>
>>>>>
>> of

>>
>>
>>>> a
>>>>
>>>>
>>>>> reduction of this number of fish migrating to food webs in the
>>>>>
> North
>
>>>>> Pacific.
>>>>>
>>>>> Can you recommend anyone I might contact who has this expertise?
>>>>>
>>>>> Phil
>>>>>
>>>>> Phillip North
>>>>> Environmental Protection Agency
>>>>> Kenai River Center
>>>>> 514 Funny River Road
>>>>> Soldotna, Alaska 99669
>>>>> (907) 714-2483
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>>>>> "To protect your rivers, protect your mountains."
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